

## ABSTRACT

A digital down-converter and a receiver capable of reducing power consumption. The digital down-converter converts a frequency of a signal,  
5 received at a radio receiver and sampled with a radio frequency (RF) or an intermediate frequency (IF), to a detection frequency for a detection process. The digital down-converter comprises a first mixer for converting a frequency of the received signal to a frequency of a first IF signal; and a second mixer for converting the first IF signal converted by the first mixer to a second IF signal of  
10 the detection frequency, and complexing the converted signal.